

Core Concepts®



WORK FORCE II®

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DOS 3.3 BASED



SS,DD,RH
single side
double density

WORK FORCE II®

DOS 3.3 BASED

continuous error free data with 3M diskettes

WORK FORCE II^{T.M.}

USER GUIDE

Programs and User Guide by
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TABLE OF CONTENTS

WARRANTY.....	iii
OVERVIEW.....	1
GENERAL INSTRUCTIONS.....	2
THE BALANCING ACT.....	3
THE CALCULATOR.....	6
THE WAGE ANALYZER.....	8
THE LOAN ANALYZER.....	9
THE SAVINGS ANALYZER.....	11
THE LINE WRITER.....	12
GLOSSARY.....	13

OVERVIEW

WORK FORCE II is a collection of six programs written in Applesoft basic for the Apple II, Apple II+, and the Apple IIe. System requirements include DOS 3.3, one disk drive, at least 48k of memory, and a CRT. A second disk drive and a printer are optional. All six programs will support the printing of results but it is not necessary to have a printer to run these programs. WORK FORCE II is copyable and listable. Every effort has been made to make these programs useful and easy to use. Please send us your comments and opinions, we welcome them.

CAT

CAT is the name of our catalog program. CAT will display a menu from which you can select the program you wish to run. Each time you finish a program you will be returned to this catalog. The program revision number is the 4 digit number on the right side of the display.

THE BALANCING ACT

The Balancing Act will aid you in balancing your checkbook. After entering your checkbook balance, statement balance, charges, interest earned, outstanding checks, and deposits not yet credited, The Balancing Act will compute the entries and tell you if your account balances. It will display category totals and the amount of error, if any. Options will allow you to add, change, or print entries.

THE CALCULATOR

The Calculator will turn your Apple into a four function printing calculator with memory and percent. Printing is optional.

THE LOAN ANALYZER

The Loan Analyzer will compute loan and mortgage amortizations, total interest paid, total payments made, daily percentage rate, and amount of payment. Enter the amount to be financed, interest rate, and length of the loan. The Loan Analyzer does the rest.

THE SAVINGS ANALYZER

The Savings Analyzer will compute the future value of savings, IRA's, and investments. You will need to enter the interest rate, amount to be saved or invested, frequency of deposits, and the length of time before withdrawal. Like all the programs in WORK FORCE II the results can be printed.

THE WAGE ANALYZER

The Wage Analyzer will figure your wage or income by the hour, week, bi-weekly, semi-monthly, monthly, and annually. Increases and decreases can be computed by amount or percent, and in relation to the initial wage entered or a change from that wage.

THE LINE WRITER

The Line Writer is a line-at-a-time typewriter. Each line can be changed or corrected before sending it to the printer and/or the display. This program is very handy for printing envelopes and labels. If you are not using a printer, The Line Writer can be useful to increase typing skills.

GENERAL INSTRUCTIONS

MAKE A BACK-UP COPY :

Using the COPYA program on your Apple System Master disk, make a back-up copy of WORK FORCE II. An extra disk label has been provided for the back-up disk. Store your master disk in a safe place and use your back-up. Your WORK FORCE II disk comes to you write protected. As long as the black write-protect tab on the right upper corner is not removed it will protect the disk from being erased by accident.

DISK CARE :

Never touch the surface of the disk itself. Keep disks away from extremes of heat and cold, direct sunlight, and magnetic fields. Do not bend the disk or write on the disk label with a pencil or ball point pen.

START-UP PROCEDURE :

APPLE IIe : With the computer power turned on, insert your WORK FORCE II disk into drive #1, hold down the OPEN-APPLE key and the CONTROL key and press RESET.

APPLE II+ : With the computer power turned off, insert your WORK FORCE II disk into drive #1 and turn on the computer power.

APPLE II : Boot your system using the system master disk. Load Applesoft into memory. Insert your WORK FORCE II disk into drive #1, type RUN CAT, and press return.

NOTE: The Catalog program of WORK FORCE II is called CAT. If your system is up and running you can start WORK FORCE II by inserting the disk into drive #1, typing RUN CAT and pressing return.

LANGUAGE NOT AVAILABLE: WORK FORCE II is written in Applesoft basic. If Applesoft is not in your computer memory, upon loading this program you will see LANGUAGE NOT AVAILABLE on your screen. You must then load Applesoft in your computer before running WORK FORCE II.

ENTERING DATA :

Always press return after entering a value, number, amount, date, or comment. It is not necessary to add trailing zero's, the programs will do that for you. Do not press return after answering a question with Y, N, or F. Y indicates YES or CORRECT, N indicates NO, NOT CORRECT, or CANCEL, and F indicates FINISHED, or CORRECT AND GO TO NEXT CATEGORY.

PRINTING DATA :

If you are to be printing data, be sure to have your printer turned on, and on line. Failure to do so will cause the program to stop and wait for the printer to be turned on.

The standard slot for your printer interface card is slot #1. If you have your interface card in a different slot you must indicate this when asked in each of the programs.

EXIT TO BASIC :

If you select EXIT TO BASIC you will leave WORK FORCE II and have to type RUN CAT and press return to restart it. Use this only when you are finished using WORK FORCE II.

THE BALANCING ACT

In using The Balancing Act (checkbook balancing program), you will need to enter the following information:

1. Your checkbook balance.
2. Any service charges or fee's not already entered in your checkbook, (up to 20 entries).
3. Interest earned on checking account, if any. (1 entry only)
4. Ending balance from your bank statement.
5. All deposits made after the closing date of the bank statement, (up to 40 entries).
6. All outstanding checks and withdrawals not listed on your bank statement, (up to 100 entries).

If you leave out an entry or enter a wrong value, you will be able to correct it, (see page 5).

ENTERING CHECKBOOK BALANCE

When asked to enter THE ENDING BALANCE AS SHOWN IN YOUR CHECKBOOK, type in your current checkbook balance and press return. If the amount was entered without error, type Y. If a mistake was made, type N, enter the correct balance and press return. You need not press return after typing Y or N.

ENTERING CHARGES & FEE'S

When asked to enter BANK SERVICE CHARGES, OR FEE'S, enter any monthly fee's, service charges, nonsufficient funds charges, or other charges that you have NOT ALREADY deducted from your checkbook. If you discover that you forgot to enter a check or withdrawal in YOUR checkbook, it should be entered here.

Upon entering the information, pressing return, and typing Y or N, the program will subtract the amount from your checkbook balance. Your new balance will be displayed and must be entered in your checkbook.

The display will look like this:

OLD BALANCE	130.00
LESS CHARGE OR FEE	5.00
	=====
NEW BALANCE	125.00

If you have already deducted all charges and fee's from your checkbook, enter 0, press return, and type F. F means finished. You must type F, instead of Y or N, after you have entered your last charge or fee. 20 entries can be made in this category.

ENTERING INTEREST

Many checking accounts today pay interest on the average daily balance. If yours is an interest earning checking account and you have NOT ALREADY added the interest to your checkbook balance, enter the amount of interest you earned, press return, & type Y or N. Your new checkbook balance will be displayed, enter it in your checkbook.

The display will look like this:

OLD BALANCE	125.00
PLUS INTEREST	.50
	=====
NEW BALANCE	125.50

If you earned no interest, enter 0, press return, and type Y. You may make only one entry in this category.

ENTERING BANK STATEMENT BALANCE

When asked to enter THE ENDING BALANCE AS SHOWN ON YOUR BANK STATEMENT, refer to your monthly checking account statement received from your bank or credit union, enter the ENDING BALANCE, press return, and type Y or N. IF YOU TYPE Y, AND THE STATEMENT BALANCE IS NOT CORRECT, YOU WILL NOT BE ABLE TO CHANGE IT! Double check this entry before selecting Y.

ENTERING DEPOSITS & CREDITS

When asked to enter DEPOSITS OR CREDITS, compare your bank statement to your checkbook, and enter any deposits you have made after the closing date of your bank statement or that do not appear on your statement. You will be able to make 40 entries. After entering the amount, press return, and type Y, N, or F (finished) if it's your last entry.

ENTERING CHECKS & WITHDRAWALS

When asked to enter CHECKS AND WITHDRAWALS, compare your bank statement to your checkbook, and enter any checks you have written or withdrawals you have made that are not reflected on your bank statement.

You will be asked to enter the check number. If you do not wish to enter a check number, press return, and proceed with entering the amount of the check or withdrawal. If you do not wish to enter any check numbers, enter N in response to CHECK NUMBER?, and press return. From then on a check number will not be requested, only the amount.

After entering the amount, press return, and type Y, N, or F (finished) if it is your last entry. If you type N you will be able to change both the amount and the check number. There is room for 100 entries in this category.

DATA DISPLAY

Upon entering your last check or withdrawal the computer will display ***DATA ENTRY IS COMPLETE*** and continue with the data display. The data display will show the total amount entered in each category. It will also show your computed correct checkbook balance. If your checkbook does not balance, the display will indicate the difference between your present balance and the computed correct checkbook balance. Below is an example of a final data display.

BANK STATEMENT BALANCE:	150.50
TOTAL DEPOSITS & CREDITS:	50.00
TOTAL CHECKS & WITHDRAWALS:	75.00
TOTAL CHARGES & FEE'S:	5.00
INTEREST	0.50

PRESENT CHECKBOOK BALANCE:	125.50
----------------------------	--------

CORRECT CHECKBOOK BALANCE:	125.50
----------------------------	--------

YOUR CHECKBOOK BALANCES

In this example the checkbook balances, the present balance equals the correct balance. The present balance is your entered checkbook balance, minus charges and fee's, and plus interest.

There are many reasons why your checkbook may not balance. If you are sure all the information entered is correct and nothing was left out, then you either have a mathematical error in your checkbook, you have an entry error or entry missing from your checkbook, or your bank has made a mistake. Although it is unlikely your bank made the mistake, it has happened. BE SURE TO DOUBLE CHECK ALL YOUR INFORMATION!!

You can check, change, or add entries using the options of the main menu. With the data display on the screen, press return to go to the main menu.

MAIN MENU

The main menu lists seven options. We will discuss each option and its use.

1. PRINT DATA: If you are using a printer you can use the print data option to get a hard copy of the final data display and all entries made in each category. Upon selecting PRINT DATA, the program will ask if your printer interface board is in slot #1. Slot #1 is the standard place for this board. If your board is in slot #1, type Y. If you have your interface board in a different slot, type N, enter the correct slot, and press return.

You will be asked to enter a date or comment, to be printed at the top of the page. If you do not wish to make an entry, press return. Do not use comma's or periods within your date or comment. The program will return to the menu after printing is complete.

2. DISPLAY ALL ENTRIES: This option will display all entries made in each category and return you to the final data display.

3. DISPLAY FINAL DATA: This option will return you to the final data display.

4. ADD OR CHANGE AN ENTRY: Choosing this selection will allow you to add additional entries to your data, or change an existing entry. A second menu will appear with this selection.

5. RUN PROGRAM AGAIN: This selection will start The Balancing Act from the beginning. ALL ENTERED DATA WILL BE LOST!

6. GO TO CATALOG: This option will cause the computer to exit this program and return you to the catalog. ALL ENTERED DATA WILL BE LOST!

CHANGING ENTRIES

If you find you need to change an entry, you will need to know the ENTRY NUMBER. The entry number can be found by either printing data or displaying all entries. If you display all entries, make a note of the ENTRY NUMBER of any item you wish to change.

Below is an example of a category display identifying the entry number. The entry number for the deposit of \$25.00 is 3. The program will not allow you to change an entry that does not exist. Using the example below, if you tried to change entry 5, 5 would not be accepted as a valid entry number.

DEPOSITS & CREDITS

1.	10.00	2	5.00
ENTRY NUMBER----->3.	25.00	4.	10.00

Each time a change or an addition is made, all totals and balances will automatically be updated.

THE CALCULATOR

The Calculator program will allow your computer to operate like a four function printing calculator, with memory and percent. Up to four decimal places can be displayed. When entering + (plus) or * (multiply) it will not be necessary to press the shift key.

The Calculator will begin by asking if you wish comments and instructions to be displayed. If it is your first time running this program, you should answer Y to this question. Next, the Calculator will ask if you wish to print data. Answering Y to this question will lead you to another question, IS YOUR PRINTER INTERFACE CARD IN SLOT #1? Slot 1 is the standard slot for this card. If your interface card is in a different slot, type N, enter the correct slot number, and press return.

The final set-up question will be HOW MANY DECIMAL PLACES TO BE DISPLAYED? Type your answer (0 to 4) and press return. After these questions are answered the computer will prompt with ENTER FIRST NUMBER. Enter the first number from your equation and press return.

Shown below is an example for the equation $10 + 6 - 4 = 12$, displaying 2 decimal places. Examples A thru D.

(A)

ENTER FIRST NUMBER. 10 (enter 10 and press return)

(B)

10.00

NEXT ENTRY? +6 (enter operation +, the number 6, press return.)

(C)

10.00

+6.00

=====

16.00

NEXT ENTRY? -4 (enter operation -, the number 4, press return.)

(D)

16.00

-4.00

=====

(we will call this number the RESULT)----->12.00

NEXT ENTRY? (ready for next operation)

Unless you are using the STORE, CLEAR, CLEAR MEMORY, or F (finished) commands, you must always respond to "NEXT ENTRY?" by first entering the operation to be performed, (+, -, *, /). The Calculator will not accept a number until the operation has been entered. If you mistakenly select the wrong operation, type N and press return. The "N" must be the next character following the operation.

Example: NEXT ENTRY? +N (this will cancel the operation)

NEXT ENTRY? +N2.90 (this will cancel the operation)

NEXT ENTRY? +12.90N (this will NOT cancel the operation)

We will now discuss the other options, PERCENT, STORE, CLEAR, CLEAR MEMORY, +MEMORY, N (cancel), and F (finished).

RESULT The RESULT will be mentioned many times in the next section. The Result is the answer, see example D on page 6. If we multiply 5*5, the RESULT would be 25.

PERCENT

To use the percent function the percent sign (%) must follow the operation (+, -, *, /) and the amount.

EXAMPLES:

NEXT ENTRY? +10% (this will add 10% of the RESULT to the RESULT)

NEXT ENTRY? -10% (this will subtract 10% of the RESULT from the RESULT)

NEXT ENTRY? /10% (this will divide the RESULT by 10% of the RESULT)

NEXT ENTRY? *10% (this will yield 10% of the RESULT)

STORE

The Calculator has one memory. To store the RESULT or the first number entered into the memory, type S, and press return. Upon typing S the computer will display the word STORE. You can also add the RESULT to the memory, subtract the RESULT from the memory, multiply the memory by the RESULT, or divide the memory by the RESULT. This is done by simply typing S and then the appropriate operation (+, -, *, /).

M (MEMORY)

The value of the memory can be entered just like any number. To enter the value of the memory, type the operation (+, -, *, /), press M, and press return. This will not affect the value stored in the memory, only the RESULT. The M function will also be used to clear the memory. This is explained under CM (CLEAR MEMORY).

C (CLEAR)

To clear all data except the memory, type C, and press return. The display will then ask you again to "ENTER FIRST NUMBER". Example A, page 6.

CM (CLEAR MEMORY)

To clear the memory only, type CM, and press return.

N_(CANCEL)

To cancel STORE, CLEAR, or CLEAR MEMORY, type N. You need not press return. To cancel an operation (+,-,*,/), type N following the operation and press return.

F_(FINISHED)

After you have made your last entry or if you need to change program options, type F (finished). This will bring up the menu and allow you to RUN THE CALCULATOR AGAIN, CONTINUE WITH PRESENT DATA, CHANGE PRINTER OR DECIMAL OPTIONS, or GO TO THE CATALOG to run another WORK FORCE II program.

=====

THE WAGE ANALYZER

The Wage Analyzer will calculate increases or decreases in your salary. Your wage will be displayed to show your earnings by the hour, time & 1/2, week, bi-weekly, semi-monthly, monthly, and yearly. All numbers will be rounded to 2 decimal places and calculations are based on a 40 hour work week.

ENTERING WAGE

The program will ask you to enter your wage. This amount can be figured on any one of the 7 categories listed above, except time & 1/2. Enter only the amount at this point. The next question will ask on which period the wage was figured. Enter the correct period and press return. At this point The Wage Analyzer will compute and display the information. If you have selected to print the data, it will also be printed at this time. NOTE: If you selected to print data but your printer is not on-line, the program will STOP and wait for the printer to be turned on.

PRINTING DATA

At the start of this program you will be given three choices, PRINT ALL DATA, PRINT COMPARISON DATA ONLY, and PRINT NO DATA. Comparison data is data computed using an increase or decrease. Make your choice and press return. The program will also ask which slot your printer interface board is in. The standard slot is slot #1. If your board is in this slot answer Y, if not answer N and enter the correct slot number.

COMPARISON DATA

After the first wage has been entered and displayed, you will be able to calculate an increase or decrease from that wage. This is useful in figuring pay adjustment, as well as total amount of deductions for any given period.

Increases and decreases can be entered as a percent or an amount. If you choose to enter an amount, enter ONLY the amount of increase or decrease, not the new wage or amount. If you enter an amount, the percent of change will also be displayed. In entering a decrease you must type - (minus) before the amount or percent. Decreases must be entered as negative numbers.

THE LOAN ANALYZER

The Loan Analyzer will calculate, display, and print loan amortizations, with total interest and total payments also indicated. You will need to know the following information to run The Loan Analyzer.

1. Amount of money to be financed.
2. Annual interest rate.
3. How often payments will be made.
4. Length of time money will be financed.

AMOUNT TO BE FINANCED

When the Loan Analyzer asks for the AMOUNT TO BE FINANCED, enter the amount of money you wish to be analyzed and press return.

Amounts greater than 99 million or amounts with payments of 1 million dollars or more cannot be amortized, due to limitations of the screen size.

ENTERING INTEREST RATE

Enter the annual nominal interest rate and press return. If you make a mistake when entering the interest rate, press return and type N. If your entry is correct, type Y when asked if the entry is correct.

PAYMENTS

After entering the interest rate, the program will ask HOW OFTEN WILL PAYMENTS BE MADE? The Loan Analyzer gives you 7 choices, from weekly to yearly. Enter the correct selection number and press return.

LENGTH OF LOAN

The length of the loan can be measured in weeks, months, or years. When asked to enter the length of the loan, enter only the number of weeks, months, or years. The next part of the program will ask if the length was measured in weeks, months, or years. You will select the proper period at that time. You may use decimals, in other words, 18 months could also be entered as 1.5 years.

LENGTH MEASUREMENT

As described above, you must next select how the length was measured. You have three choices, weeks, months, or years. Type the correct number (1 to 3). Your choice will be displayed at the top of the screen. You can change it by simply typing another selection. After you have entered the correct selection, press return and the program will display the final results.

FINAL DATA DISPLAY

The final data display will give the following information. The amount financed, the total interest paid, the total payments made, the annual interest rate, the daily interest rate, and the number and amount of payments. This information can be printed, if selected through the main menu. Pressing return will bring you to that menu. Your data will NOT be lost when going to the menu.

THE MENU

The menu will give you six options. Select the desired option and press return. If you select RUN LOAN ANALYZER AGAIN or GO TO MAIN CATALOG, All Entered Data Will Be Lost ! All other selections will keep data intact and bring you back to this menu. The six options are as follows.

1. RUN LOAN ANALYZER AGAIN.
2. DISPLAY FINAL DATA.
3. PRINT FINAL DATA DISPLAY.
4. DISPLAY AMORTIZATION.
5. PRINT AMORTIZATION.
6. GO TO MAIN CATALOG.

DISPLAY AMORTIZATION

Upon selecting this option you will be asked which period you wish the amortization to start with. Enter the number and press return. Each individual payment of the loan will be displayed. It will show how much of each payment went to interest and principal, and the remaining loan balance. The total amount of interest, principal, and payments will be displayed on the bottom portion of the screen. The totals will be updated after each period is displayed.

Amortization will stop after each year is completed, or you can stop it at any period by pressing the space bar. To continue with the amortization, press return.

Once the amortization is stopped, you have 3 options. First, to continue by pressing return. Second, to abort and return to the menu by pressing A. And Third, to print the present period and the totals by pressing P. If print is selected, the program will continue with the amortization when the printing is complete. IF THE PRINTER IS NOT ON LINE THE PROGRAM WILL STOP!

PRINT OPTIONS

Upon selecting one of three print options, for the first time, you will be asked if your printer interface board is in slot #1. Slot #1 is the standard place for this board. If your printer interface board is in a different slot, type N, enter the correct slot number and press return.

If PRINT AMORTIZATION is selected, you will first be asked which period you wish to start at. Enter correct period and press return. You can abort the printing and return to the menu by pressing the space bar. The final data display will be printed at the end of each amortization.

If you select to print and your printer is off or off line, the program will stop. To continue with the program you must turn the printer on.

THE LOAN ANALYZER (supplement)

BALLOON PAYMENTS

If you wish to figure a balloon payment, enter Y (yes) when asked, DO YOU WISH TO COMPUTE A BALLOON PAYMENT?. The program will go to the balloon payment routine if you enter Y. This routine will display the payment needed at each period, to pay the loan over the entire term. It will also show the amount needed for an interest only payment. These figures are for your information only. You may select either of these or any other amount, such as less than interest or less than principal & interest. When asked to ENTER DESIRED PAYMENT, enter the amount and press return.

Next you will be asked to enter the NUMBER OF YEARS TILL BALLOON PAYMENT. Enter the new term of the loan and press return. This entry must be in years. 18 months would be entered as 1.5. The Loan Analyzer will then compute the data and display the balloon payment amount in the Final Data Display.

Do not use comma's when entering numbers or amounts.

CHANGING PAYMENTS

Most banks and other financial institutions have a policy of always rounding the payment up. For example, a monthly payment of \$546.371 would become \$546.38. Of the 24 banks, credit unions, savings & loans, and loan companies we contacted, 7 out of 8 used this method. We have decided to use this method in our Loan Analyzer.

On the other hand however, most financial calculators and loan amortization computer programs round the payment up only at \$.005 or greater. Thus, \$546.371 would become \$546.37.

This difference in rounding occurs only when computing the initial periodic payment, not in computing interest, principal paid, or the unpaid balance.

The LOAN ANALYZER gives you the flexibility to enter any amount for the periodic payment. To do this follow the following steps:

1. When asked if you wish to compute a balloon payment or change the payment amount, enter Y for yes.
2. Enter the new payment amount & press return.
3. When asked to enter the number of years, enter 0 and press return.

The Loan Analyzer will then compute the loan using the new payment at the original term and interest rate. Increasing the payment may cause the loan to be paid off early. The program will indicate if this happens.

FINDING AMOUNT WHICH CAN BE BORROWED

You can find the amount which can be borrowed with a given payment, interest rate, and term. To do this enter 0, when asked to ENTER THE AMOUNT TO BE FINANCED. The program will then continue and ask for the interest rate, the term, frequency of payments, and the amount of payment. The amount will be displayed in the final data display as the AMOUNT FINANCED.

THE LOAN ANALYZER (supplement)

CURRENT YEAR TOTAL INTEREST

The total interest paid in each year of the loan will be displayed as CURRENT YEAR INTEREST, or printed as TOTAL INTEREST PAID IN YEAR __. In order for this information to be correct the entire year must be displayed or printed. If the amortization is started in mid-year, the CURRENT YEAR INTEREST will be the sum of only those periods displayed or printed.

STARTING AN AMORTIZATION IN MID-YEAR

An amortization can begin with any of the 12 months. This option is only available when monthly payments have been selected. If monthly payments have been selected, you will be asked to enter the beginning month of the loan (1 thru 12), before the amortization is printed or displayed. This will allow you to find the exact amount of interest paid in each year for tax purposes.

Most amortizations received from lending institutions divide all years into 12 months, even when the loan may have begun in May or September. To divide all the years into 12 months simply enter 1.

ENTERING A DATE OR COMMENT LINE

Unlike the other programs in WORK FORCE II, The Loan Analyzer will allow you to enter as many lines of comment as you wish. These lines will appear at the top of the print-out. After entering a line, press return and enter your next line. When you are finished just press return again. If you wish the lines to be 80 characters long, continue typing when you come to the right side of the display. Although you may have two lines on the screen it will be printed as one line.

FINDING THE TERM

The Loan Analyzer will allow you to find the unknown term or length of a loan. To do this enter the AMOUNT TO BE FINANCED, the INTEREST RATE, and HOW OFTEN PAYMENTS WILL BE MADE. When asked to enter the length of the loan, enter 0. Next, enter the payment amount. The Loan Analyzer will then compute the term needed to payoff the amount financed.

PRESENT VALUE OF CAPITAL LEASES

A capital lease is a lease in which a "buyer" leases a property for a given number of years with a balloon payment due at the end of the lease. Upon payment of the balloon the "buyer" becomes the owner of the property. The Loan Analyzer will compute the present value of such an agreement. The present value is the same as the amount financed.

To find the present value enter 0 when asked to enter the amount financed. Next, enter the present interest rate, select monthly payments, enter the amount of the monthly payment, and enter the term or length of the lease. The program will ask if there is a balloon payment at the end of the term. Enter Y, then enter the amount of the balloon payment and press return.

The program will compute the present value and display it as the AMOUNT FINANCED.

THE LOAN ANALYZER (supplement)

BALLOON PAYMENTS

If you wish to figure a balloon payment, enter Y (yes) when asked, DO YOU WISH TO COMPUTE A BALLOON PAYMENT?. The program will go to the balloon payment routine if you enter Y. This routine will display the payment needed at each period, to pay the loan over the entire term. It will also show the amount needed for an interest only payment. These figures are for your information only. You may select either of these or any other amount, such as less than interest or less than principle & interest. When asked to ENTER DESIRED PAYMENT, enter the amount and press return.

Next you will be asked to enter the NUMBER OF YEARS TILL BALLOON PAYMENT. Enter the new term of the loan and press return. This entry must be in years. 18 months would be entered as 1.5. The Loan Analyzer will then compute the data and display the balloon payment amount in the Final Data Display.

Do not use comma's when entering numbers or amounts.

CHANGING PAYMENTS

Most banks and other financial institutions have a policy of always rounding the payment up. For example, a monthly payment of \$546.371 would become \$546.38. Of the 24 banks, credit unions, savings & loans, and loan companies we contacted, 7 out of 8 used this method. We have decided to use this method in our Loan Analyzer.

On the other hand however, most financial calculators and loan amortization computer programs round the payment up only at \$.005 or greater. Thus, \$546.371 would become \$546.37.

This difference in rounding occurs only when computing the initial periodic payment, not in computing interest, principal paid, or the unpaid balance.

The LOAN ANALYZER gives you the flexibility to enter any amount for the periodic payment. To do this follow the following steps:

1. When asked if you wish to compute a balloon payment or change the payment amount, enter Y, for yes.
2. Enter the new payment amount & press return.
3. When asked to enter the number of years, enter 0 and press return.

The Loan Analyzer will then compute the loan using the new payment at the original term and interest rate. Increasing the payment may cause the loan to be paid off early. The program will indicate if this happens.

FINDING AMOUNT WHICH CAN BE BORROWED

You can find the amount which can be borrowed with a given payment, interest rate, and term. To do this enter 0, when asked to ENTER THE AMOUNT TO BE FINANCED. The program will then continue and ask for the interest rate, the term, frequency of payments, and the amount of payment. The amount will be displayed in the final data display as the AMOUNT FINANCED.

THE SAVINGS ANALYZER

The Savings Analyzer will compute the future value of savings and investments. This program calculates interest on the average daily balance. This is the most common method used for passbook savings accounts and IRA's. You will need the following information to run this program:

1. The annual nominal interest rate.
2. How often interest is compounded.
3. How often deposits will be made.
4. Amount of deposits.

ENTERING INTEREST RATE

The Savings Analyzer will begin by asking you to enter the ANNUAL NOMINAL INTEREST RATE. Enter the interest rate and press return. If you entered the correct rate, type Y. If not, type N and reenter the correct interest rate.

SELECTING COMPOUNDING SCHEDULE

The interest your account earns is added to, or compounded to, the account at specific times during the year. This is called the compounding schedule. Most accounts compound interest quarterly or daily. Select the compounding period for your account and press return.

DEPOSITS

The program will ask how often deposits will be made. It assumes all deposits will be of equal amounts. Enter the correct selection and press return.

LENGTH OF SAVINGS

The Savings Analyzer will need to know how long the deposits will be kept in the account. The length can be measured in weeks, months, or years. At this time enter only the number of weeks, months, or years. The next section will ask how the length was measured.

If the savings period is less than the compounding period, no interest will be earned. You may use decimals, therefore 18 months may be entered as 1.5 years.

LENGTH MEASUREMENT

As described above, the length can be measured in weeks, months, or years. Enter the correct selection (1 to 3). Your choice will be displayed at the top of the screen. To change it simply enter another number. After you have entered the correct period, press return. The program will then display the results.

DATA DISPLAY

After making your last entry the computer will display the following information; Nominal Interest Rate, Effective Interest Rate, Total Deposits, and Total Interest earned. The last paragraph will also include, the length of savings period, the compounding schedule, and the total value of the account at the end of the savings period.

Pressing return at this point will take you to the menu. The menu will allow printing the data display, running the program again, or going to the catalog. If you choose RUN PROGRAM AGAIN, or GO TO CATALOG, ALL DATA WILL BE LOST !

THE LINE WRITER

The Line Writer is a line-at-a-time correctable typewriter. It was designed to be used with a printer, however it is not necessary to use a printer. The Line Writer can be a good media for typing practice. The program will allow you to type in a line, correct it, and send the line to both the display and the printer, or to the display only. It is very useful for labels, envelopes, and other small word processing tasks.

The program will begin by asking, IS YOUR PRINTER INTERFACE BOARD IN SLOT #1? If you are not using a printer, answer this question by typing F. If you are using a printer the standard slot for this card is slot 1. Type Y if your interface board is in slot 1. If it is not, type N, enter the correct slot, and press return.

80 COLUMN DISPLAY

The Line Writer will ask if your computer has an 80 column card. There are many 80 column cards on the market today. This program will display 80 columns with an Apple IIe and the Apple 80 column card. It may work with other Apple's and other 80 column cards. If you can not use or do not want an 80 column display, answer this question by typing N.

If you are not using an Apple IIe and answer Y (yes) to this question, you will also be asked which slot the 80 column card is in. Enter the correct slot number and press return.

80 OR 132 COLUMN PRINT MODE

Many printers will accept 132 characters per printed line. The Line Writer will send lines of either 80 or 132 characters. You must enter either 80 or 132 when asked to SET LINE LENGTH. If you wish to send 132, you must set-up your printer to accept 132 characters per line, prior to running this program.

ENTERING TEXT

Your screen will display character position markers, 1 to 80, or 1 to 132, depending on which format you chose. Type in your text and press return to send the line to the printer and/or the display. If you make a mistake, move the cursor using the <- and -> arrow keys and retype. DO NOT USE the ^ and v arrow keys to move the cursor! Any characters behind the cursor will not be printed. Be sure to move the cursor past the last character you wish to be printed.

If you enter more characters than you originally selected, the line will not be printed and you will be informed of your error. You must then move the cursor past the last character you wish to be entered, and press return.

The Line Writer will accept both upper and lower case letters, as well as all other numbers and symbols.

After each line is entered, it will be displayed on the upper half of the screen. Depending on whether or not 80 or 132 characters has been selected, and if you are or are not using an 80 column card, up to 10 lines of text can be displayed at one time.

IO_EXIT the program or go to the MENU, type @ at the first character position & press return. The menu options are; CONTINUE WITH THE PRESENT TEXT, CLEAR TEXT & CONTINUE, CHANGE LINE WRITER OPTIONS, & GO TO THE CATALOG. Enter your selection & press return.

THE LINE WRITER (supplement)

PRINTING THE UPPER SCREEN

The entire text displayed in the upper part of the screen can be sent to the printer. After you have entered all the lines of text you wish to print, enter ^ at space 1, and press return. This text can be printed as many times as you wish by entering ^.

Only those lines seen in the display will be printed. The number of lines you will be able to print will depend on the mode you are in (80 or 132 characters / 40 or 80 column display).

If your printer interface card is in slot 1 you can select to DISPLAY TEXT ONLY (F) and still print the upper screen by entering ^ at space 1 and pressing return.

UPPER AND LOWER CASE

The Line Writer will not accept lower case letters when using a Apple II or Apple II+.

**** APPLE III OWNERS ****

WORK FORCE II will run on the Apple III in the Apple II emulation mode. To print data using an Apple III select slot 7 for your printer interface.

**** APPLE IIc OWNERS ****

WORK FORCE II will run on the Apple IIc. To print data using an Apple IIc select slot 1 for your printer interface. To display 80 columns with the Line Writer select slot 3 for your 80 column card.

GLOSSARY

A: Abort or quit. Used in the Loan Analyzer.

AMORTIZATION: Gradual extinguishment of a loan obligation by a payment at the time of each interest period.

APPLESOFT: Extended version of the Basic programming language used with Apple II computers.

BOOT: To start up your computer by loading into memory a program from a disk.

DATA: Information in the form of numbers, letters, or words.

DOS 3.3: Disk Operating System. A system that allows your Apple to communicate with a disk drive. Current revision is 3.3.

EFFECTIVE INTEREST: Rate at which interest is actually earned due to the number of compounding periods.

F: Signifies the entry is correct and you are finished with the category.

INTEREST COMPOUNDING: To add the interest earned to the amount on deposit. Interest is then earned on the new total amount.

IRA: Individual Retirement Account.

N: Signifies an entry is not correct, or the answer NO.

NOMINAL INTEREST: Interest rate most commonly quoted by lending and savings institutions. Rate of interest earned or charged on a given amount for a period of one full year.

OPERATION: In The Calculator program this refers to adding, subtracting, multiplying, and dividing. These are all operations to be performed on numbers.

PRINTER INTERFACE CARD: A printed circuit board that plugs into one of the expansion slots in your Apple computer, that allows your Apple to communicate with a printer.

RESULT: The answer obtained when performing an operation on two numbers. Used in The Calculator program.

SAVINGS PERIOD: The length of time before a given amount will be withdrawn from a savings account.

SLOT: Refers to the expansion slots inside your computer. Apple II and II+ both have 8 slots, 0 thru 7. The Apple IIe has 7, 1 thru 7.

WRITE PROTECT TAB: A small adhesive strip that covers a notch in the top right corner of a disk. New information cannot be saved on the disk with the notch covered. With the tab covering this notch, data on the disk is protected from being changed or erased.

Y: Signifies an entry is correct, or the answer YES.

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